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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,199	03/24/2006	Atsushi Oohashi	Q93156	1916
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SUITE 800				
WASHINGTON, DC 20037				
EXAMINER				
VORTMAN, ANATOLY				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/573,199

**Applicant(s)**

OOHASHI ET AL.

**Examiner**

ANATOLY VORTMAN

**Art Unit**

2835

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date 3/24/06
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

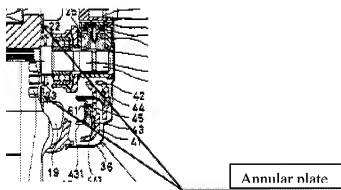
2. Claims 14-19 and 21-26, are rejected under 35 U.S.C. 102(b) as being anticipated by JP/08-331,817 to Oiwa.

Regarding claims 14, 15, and 23, Oiwa disclosed (Fig. 1- 4) an alternator comprising: a case (6); a rotor (4) disposed inside said case, said rotor being fixed to a shaft (7) and having a centrifugal fan (18, 19) disposed on an axial end portion; a stator (5) disposed so as to surround said rotor, alternating current being generated in said stator by a rotating magnetic field from said rotor; and a rectifier (3, 3a) disposed near an end portion of said shaft, said rectifier rectifying said alternating current generated in said stator, wherein: said rectifier includes: a first heat sink (41); first unidirectional conducting element bodies (43) disposed into penetrating apertures formed on a surface of said first heat sink so as to be spaced apart; a second heat sink (42) disposed so as to be separated from said first heat sink; second unidirectional conducting element bodies (44) disposed into penetrating apertures formed on said second heat sink so as to be spaced apart; and a circuit board (45, 51) having a circuit-board terminal (61) by which said first unidirectional conducting element bodies and said second unidirectional conducting element

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bodies are connected so as to constitute a bridge circuit, and a terminal connection portion, configured by connecting a terminal (431) leading out of said first unidirectional conducting element bodies and a terminal (441) leading out of said second unidirectional conducting element bodies respectively with said circuit board terminal (61), is disposed between said rotor (4) and said circuit board (45, 51), radially outside said fan (19).

Regarding claim 16, Oiwa disclosed that said fan (19) has an annular plate (not numbered) disposed on an end portion near said circuit board:



Regarding claim 17, Oiwa disclosed that said terminal connection portion is configured by extending axially and connecting said terminal (431) of said first unidirectional conducting element bodies (43), said terminal (441) of said second unidirectional conducting element bodies (44) and said circuit board terminal (61) respectively (Fig. 4).

Regarding claim 18, Oiwa disclosed that said first heat sink (41) and said second heat sink (42) each have a horseshoe shape; and said second heat sink is disposed radially outside said first heat sink (Fig. 1, 4).

Regarding claim 19, Oiwa disclosed that an outer peripheral portion of said second heat sink (42) is in surface contact with said case (Fig. 3).

Regarding claim 21, Oiwa disclosed that a resin coating (92) is formed on a surface of said first heat sink and said second heat sink (Fig. 8).

Regarding claims 22, 24, and 25, the claims are the product-by-process claims reciting method steps of forming the device, i.e. brazing and welding. Even though the claims are limited by and defined by the recited process, the determination of patentability of the product is based on the product itself, and does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). It is the patentability of the product claimed and not of the recited process steps which must be established. *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). It should also be noted that a “[p]roduct-by process claim, although reciting subject matter of claim in terms of how it is made, is still product claim; it is patentability of product claimed and not recited process steps that must be established, in spite of fact that claim may recite only process limitations”, *In re Hirao and Sato*, 190 USPQ 15 (Fed. Cir. 1976). Therefore the aforementioned claims 22, 24, and 25 have not been given patentable weight.

Regarding claim 26, Oiwa disclosed that a lead wire connection portion (61) in which a lead wire (not shown) of said stator (5) is connected to said circuit board terminal of the circuit board projects outward near said rotor (Fig. 1-4).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oiwa taken alone.

Regarding claim 20, Oiwa disclosed all, but that said first and second heat sinks are made of aluminum.

Since aluminum was notoriously known and widely used at the time of the invention as a very good thermal conductor for making thermally conductive components and heat sinks, it would have been obvious to a person of ordinary skill in the cooling art at the time of the invention to use aluminum for making said first and second heat sinks of Oiwa, in order to achieve a good rate of the heat exchange and to augment the cooling efficiency of the cooling arrangement, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

***Conclusion***

5. The additional prior art made of record and listed on PTO-892 was not relied upon, but is considered pertinent to Applicant's disclosure, because of the teachings of various alternators comprising cooling fans and rectifiers.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANATOLY VORTMAN whose telephone number is (571)272-2047. The examiner can normally be reached on Monday-Thursday, between 10:00 am and 8:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jayprakash Gandhi can be reached on 571-272-3740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anatoly Vortman/

Primary Examiner, Art Unit 2835